



Gradualist best practice in wind power policy



Scott Victor Valentine¹

Department of Public Policy and The School of Energy and Environment, City University of Hong Kong, Hong Kong

ARTICLE INFO

Article history:

Received 18 January 2013

Revised 12 November 2013

Accepted 12 November 2013

Available online 9 December 2013

Keywords:

Denmark
Energy policy
Best practice
Gradualism

ABSTRACT

This paper introduces and examines a conceptual dialectic between best practice and gradualism in regard to wind power policymaking strategy. It attempts to ascertain the extent to which either of these two strategies is evident in actual applied policy experience. To do so, the study presents an overview of wind power policy in Denmark from the inception of its modern day program to the present time. It concludes that both best practice and gradualist strategies were evident during the evolution of Denmark's wind power development and that the concept of "gradualist best practice" better explains the Danish wind power policymaking strategy. This article concludes with a discussion of how this reconceptualization helps improve an understanding of policymaking and helps overcome weaknesses of best practice or gradualist strategies applied in isolation of each other.

© 2013 International Energy Initiative. Published by Elsevier Inc. All rights reserved.

Introduction

A man who uses an imaginary map, thinking it a true one, is likely to be worse off than someone with no map at all; for he will fail to inquire wherever he can, to observe every detail on his way, and to search continuously with all his senses and all his intelligence for indications of where he should go (Schumacher, 2010/1973).

Over 40 years ago, E.F. Schumacher penned the above observation in a critique of neo-classical economic theory. However, it can be said that the same sentiments apply to the challenge of designing and implementing policy for wind power diffusion. Wind power policy research is rife with studies that attempt to extract useful policy lessons from successful wind power development programs in leading wind power nations such as inter alia Denmark (Agnolucci, 2007; Szarka, 2006), Germany (Wüstenhagen and Bilharz, 2006; Zitzer, 2009), Spain (Montes et al., 2007; Rivier, 2010), China (Liu and Kokko, 2010; Xia and Song, 2009) and the United States (Fischlein et al., 2010; Wiser et al., 2007).

In many wind power policy studies, researchers have focused on one or two key factors which have seemingly catalyzed success. These studies have highlighted the importance of feed-in tariffs (Mendonca et al., 2009; Pembina Institute, 2008), green taxes (EWEA, 2005), management of public opinion (Firestone and Kempton, 2007), access to finances (Lüthi and Prässler, 2011), links to industrial development (Blanco and Rodrigues, 2009), strategic national planning (Toke et al., 2008), and technological learning (Smit et al., 2007), to name but a few topics.

In recognition that many of these are indeed influential, other researchers have attempted to draw these factors together to

comprehensively enumerate the assorted challenges that policymakers face in designing an effective wind power diffusion program (cf. Komor, 2004; Saidur et al., 2010; Valentine, 2013; Wizelius, 2007). In the process, frameworks have been proposed to help policymakers understand the inter-relationships between many of the factors deemed important for driving successful wind power development. For example, as depicted in Table 1, Valentine presents findings from research which group factors that influence wind power development into a STEP framework marked by social, technological, economic and political categories (Valentine, 2010).

While Valentine's framework serves as a useful catalog of factors that influence wind power development, it is inadequate for guiding the development of prescriptive policy. As Valentine acknowledges, "understanding the relative influence of each variable is a necessary exercise if policymakers are to identify forces which will have the strongest potential for catalyzing electricity regime change...given the numerous inter-relationships between the STEP forces, attempts must also be made to understand the nature of these connections and explicate how the forces which inhibit wind power development respond to changes occurring to other factors within the complex adaptive policy system (Valentine, 2010)". In short, Valentine's point is that although these influences have been documented, current limitations in understanding the relative influence of the variables and the causal relationships between the variables render the STEP framework hard to apply for guiding prescriptive policy.

Recently, a parallel track of research attempts to overcome this challenge by enumerating a list of "best practice" principles that have proven to be successful in a number of markets. The premise being that policies that have been effective in a number of markets exhibit a certain degree of transferability. They exhibit resilience in the face of contextual influences that might otherwise cause a policy that was successful in one nation to be unsuccessful in another nation.

E-mail address: scott.valentine@cityu.edu.hk.

¹ Tel.: +852 3442 8922; fax: +852 3442 0413.

Table 1

STEP framework of factors influencing wind power development.
Source: Valentine (2010).

Social	Technical	Economic	Political
NIMBY concerns	Stochastic nature of wind power	Externalities not internalized	Political conflict over optimal electricity mix
Level of civic activism	Multi-stakeholder grid management	Other competing alternative technologies	Level of fossil fuel industry opposition
Geographic hurdles	Logistical “bother”	Subsidies to traditional technologies	Diffused alternative energy support
Market information asymmetry	Distance to grid	Insufficient renewable energy subsidies	Energy efficiency initiatives prioritized
Social complacency	Inadequate R&D to improve storage	Long-term fossil fuel purchase commitments	Complacency regarding CO ₂ reductions
Electricity price sensitivities	Underestimated potential	Market players lack investment incentives	Vertically integrated utility monopoly
Concerns over community impact		Government budget limitations	Weak adjoining grid coordination
		National advantage in other energy resources	Lack of R&D support for wind power

In regard to wind power policy, what exactly constitutes best practice? In a 2011 article published in *Energy Policy*, Clara Garcia posits an interesting interpretation wherein “best practice” in grid-connected renewable energy (GCRE) is defined as the adoption of six policy and five institutional principles (see Table 2).

These two streams of research give rise to the creation of a conceptual dialectic that has some interesting ramifications for the advancement of wind power policymaking strategy. On one side of this dialectic is the notion of “best practice”, which is premised upon the tenet that prescriptive policy can be successful in guiding wind power development. Best practice, in its purest form, represents a proactive, well-structured approach to wind power policymaking, wherein its success is contingent on the resilience of best practice principles to contextual influences that may confound transferability (IRENA, 2012). On the other side of this dialectic is the notion of “gradualist policymaking”, which represents a reactive, malleable approach to wind power policymaking. It is premised on the observation that wind power development occurs within a complex adaptive market environment where the dynamics and interplay of numerous influential variables render market developments hard to predict. Under such conditions, proponents of this perspective argue that successful policymaking is contingent on understanding the nature of the influences of policy, monitoring market development and ensuring “gradual” reactive response (Valentine, 2013). This dialectic is summarized in Fig. 1.

For policymakers in any nation, it is important to determine which perspective holds most credence to avoid ineffective policy. On one hand, if one embraces the notion that best practice principles can be imported and employed successfully in a given national context but this assumption proves invalid, the result will likely be policy that fails to catalyze desired performance. On the other hand, if one embraces the notion that a gradualist approach to wind power policy is more conducive to facilitating development but this assumption proves invalid, the result will similarly lead to sub-optimal performance. Indeed, Garcia introduces her best practice framework in a paper which argues that China's adoption of a gradualist approach to renewable energy policy potentially leads to suboptimal market development (García, 2011).

Therefore, this paper attempts to ascertain the extent to which either of these two perspectives accurately describes actual applied policy experience. The next section will outline the methodology employed for this study and provides the justification for focusing on wind power development in Denmark, the nation chosen as the core case study.

Methodology

In order to make a contribution to determining whether best practice or gradualism represents the more effective approach to encouraging wind power diffusion, a decision was made to adopt a case study approach employing historical critical analysis. The intent was to comprehensively document wind power policy in a nation with a successful track record in wind power diffusion, in order to provide the pool of evidence necessary to assess whether the nation's policies epitomized best practice or gradualism.

A decision was made to focus on only one nation because of the current absence of studies which attempt to qualify a nation's wind power policymaking strategy. This decision is in keeping with studies which suggest that single case studies facilitate a greater depth of understanding, thereby yielding more useful insights into little known phenomenon (Dyer and Wilkins, 1991; Eisenhardt, 1991). The need to understand how contextual and temporal influences impinge on policy strategies suggested that employing historical cause and effect analysis would also help explain why a given strategy (if evident) was preferred.

There are pitfalls associated with applying this methodology. First, it can be argued that a study which incorporates numerous nations would produce a higher degree of external validity (Eisenhardt, 1989). However, the need for depth of understanding outweighed the benefits to be derived from expanding the sample size. Second, it can be argued that historical cause-and-effect analysis exposes the study to experimenter and interpretative biases that confound the findings (Cook and Campbell, 1979). However, one could counter this challenge by arguing that this stage of research would be best classified as discovery (Blaikie, 2000) – not empirical validation – and that this study in general is a first attempt to describe policymaking strategy in wind power. Refinement,

Table 2

Garcia's best practice principles.
Source: García (2011).

Policies and institutions for renewables in the “best practice” model	
Policies to overcome economic barriers	<ol style="list-style-type: none"> i. Elimination of coal subsidies ii. Compensation for the negative externalities of fossil fuels (pollution, etc.) iii. Remuneration for the positive externalities of renewables iv. Compensation for higher initial costs (mandated market policies): quantity-based and price-based schemes v. Increased access to capital: fiscal and financial aids vi. Ensuring sufficient demand (PPAs)
Institutions to overcome non-economic barriers	<ol style="list-style-type: none"> i. General legal security ii. Capable bureaucracy: coordination and cutting of red-tape iii. Quality of regulations in renewables: specific, legally binding targets and predictable instruments iv. Competition and technology-friendly policies in generation: unbundling, absence of oligopolies, openness to FDI v. Competition and technology-friendly policies in manufacturing: openness to external trade and FDI

Download English Version:

<https://daneshyari.com/en/article/1046908>

Download Persian Version:

<https://daneshyari.com/article/1046908>

[Daneshyari.com](https://daneshyari.com)